



## FIG. 1

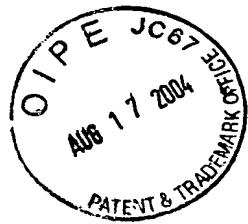
>huGST-3 (from LifeSeq EST #2617407, ORF is highlighted in capitals)  
gaattccattgtgtggtacgaaagacgacagaaggtagaggagaaaagcgcatgg  
cccggttagcagtgagcctctcaaaagcagcagggaaagccaaaggccacaaggtttcc  
acttcagcacaatgtactgcctaaaaaaATGAAGCTCTGCTGTTCTGGTTCCCA  
GATGGCCATCTGGCTCTATTCTCACATGTACAGCCACAACATCAGCTCCCTGTCT  
ATGAAGGCACAGCCCGAGCGCATGCACGTGCTGGTCTGTCTTCCTGGCGCTCTGGCT  
CTCTTTGTGGGCAGCTTTGGCAGCACCCAGATGTTTACCTGATGGAGGCC  
CGCCTGGCACGTGTGGATGACCTTCAAGCAGAGCACCGCCTGGATGCTGCACATGGCT  
GTGCGGGATCTGATAACGGGCCGTCTTGTGCGACATGAGCGTCTTGATGCCTACA  
TGGAACCTGGTCCCCGGAGACAGTCCAGCCTTTCACTGGAGAACAGCCGGCCCT  
GTGTTCTGCACCTGCGTGTGACATCATCCCACAAGATGAAATCATCCCCGGCTCAC  
TGCAGGCTCCTGTGCGAGTCAACAGCCCTTGAGGTGGAGAAGGCCTGCCGCTCCT  
ACAGCCACGTGGTGTCAAGGAGGTGCGCTTCAACCTGCAGTCCCTCTACCCGCT  
GCTGAAAGACCCCTCCCTCAACCTGCATATCGTGCACCTGGTCCGGACCCCCGGCC  
GTGTTCCGTTCCCGAGAACGACAAAGGGAGATCTCATGATTGACAGTCGATTGTGA  
TGGGGCAGCATGAGAAAAACTCAAGAAGGAGGACCAACCCTACTATGTGATGCAGGT  
CATCTGCCAAAGCCAGCTGGAGATCTACAAGACCATCCAGTCCTGCCAAGGCCCTG  
CAGGAACGCTACCTGCTTGTGCGTATGAGGACCTGGCTCGAGCCCTGTGGCCAGA  
CTTCCCGAATGTATGAATTGGTGGGATTGGAATTCTTCCCCATCTCAGACCTGGGT  
GCATAACATCACCCGAGGCAAGGGATGGTGACCACGCTTCCACACAAATGCCAGG  
GATGCCCTTAATGTCCTCCAGGCTTGGCGTGGCTTGCCTATGAAAAGGTTCTC  
GACTTCAGAAAGCCTGTGGCGATGCCATGAATTGCTGGCTACCGCCACGTCAGATC  
TGAACAAAGAACAGAGAAACCTGTTGCTGGATCTCTGTCTACCTGGACTGCCCCTGAG  
CAAATCCACTAAgagggttggaaaggcttgctgccacctgggtcagcctcagtcac  
tttctctgaatgcttctgagccttgccatcatcttgccatactacatgtctgt  
ggatatcacactgagttgtgagttgtgtccacacgtgctcaagcagaaggacttttgt  
ccatgcttgtctagaaaacagactgggaaccttatgtgagcagcacatcccacca  
gtgaaaacagggatttgctttttttttgtatcttctgtctggcagacttcag  
agactttgtggctggaggctattaagcagcacagatcagtgaaattgtatccat  
aacacctccctgtccacatcttgcacatgggaatggatcttcaccaaagagctcac  
cagcatttccacagagatgcaattctgagccctggagttcccaatggattcaag  
gaaggaagtggaaacaagggtggatgcctacttatgagcttgaccatacagctatcg  
taatcagaaaatgaaaacaaaatctctgacaaaagagcaagctttaagttcacaagg  
tgctggcttgattgaatatcatccctttgcatttccattacatagaaaact  
ttgacctgtgaaacttgcacatctgttaataactaaaattccaaataaggttctgttta  
aatgtccctttatgctttaattattagcagtaatgttcatttatggatc  
ctaaaaaaaaaaaaaa



## FIG. 2

>huGST-3 (Full length EST Lifeseq #2617407)

MLLPKKMKLLLFLVSQMAILALFFHMYSHNISSLSMKAQPERMHVLVLSSWRSGSSFV  
GQLFGQHPDVFYLMEPAWHVWMTFKQSTAWMLHMAVRDLIRAVFLCDMSVFDAYMEPG  
PRRQSSLFQWENSRALCSAPACDIIPQDEIIIPRAHCRLLCOSHNPRLWWKRPCRSYSHV  
VLKEVRFNLQVPIPAAPERPLNLHIVHLVLDPRSVFRSRERTKGDLMIDSRIVMGQH  
EQKLKKEDQPYYVMQVICQSQLEIYKTIQSLPKALQERYLLVRYEDLARAPVAQTSRM  
YEFVGLEFLPHLQTWVHNITRGKGMDHAFHTNARDALNVSQAWRWSLPYEKVSRLQK  
ACGDAMNLLGYRHVRSEQEQRNLLLDLLSTWTVPEQIH



### FIG. 3

>msGST-3 from mouse C57Bl/6 BAC clone #87(b15) (ORF is highlighted as capitals)

```
ggccatctaacttacacttggtcagacaagacaagctttgcctacaaaggccacact
ctgtcaggggtagaaaagggtgtgggtgtggcagaactccctatagtgattaaatgt
gctggtaggatattctcggtggatggatgagaaagcccagagggtagttta
aagacttgcatacatagaatgcagtgcataatagcagaattacttgcagagg
gatctggacaaatacttgcaggaatgttttttttttttttttttttttttttttttt
tacattgtcccttggatggaaatccagagaagccccaaaggttagatgtgtacaaacct
aactcagccccatccccctgtgttcgtttcaagggttttcccttccgcaggAT
GATGCTGTTGAAGAAAGGGAGGCTGCTGATGTTCCCTGGGTCCCAGGTATCGTTGTA
GCTCTCTTCAATCCATATGTCCGTCCACAGACACCTTCCCAGAGGGAGGAGTCCAGGA
GGCCCGTGATGTGCTGGTGTCTCCTGGCGGTCAAGGATCCTCTTTGTGGGACA
GCTTTTCGGGCAGCACCCGGATGTGTTCTACCTGATGGAGCCTGCCCTGGCATGTGTGG
ATGACTTTCAACCAGCAGCACAGCCTGGAAGCTGCACATGGCTGTGGGATCTCTGC
GTTCCGTCTTCCCTGTGTGACATGAGCGTCTTGATGCCTACATGAACCCAGGCCCG
GAAACAGTCCAGCCTCTCCAGTGGGAGCAAAGCCGGGCTGTGCTCAGCGCCTGTG
TGTGACTTCTTCCCTGCCAACGAGATCAGCTACCCAAGCACTGCAAGCTGCTCTGCG
GTCAGCAGCCCTTGATATGGTGGAGAAGGCCTGCCCTCACGGCTTGTGGTACT
CAAGGAGGTGCGTTTCTCAGCCTGCAGGCCCTATCCACTACTCACGGACCCCTCC
CTCAACCTGCACGTCGTGCACCTGGTCCGAGACCCCCGGCGTGTCCGATCCGGG
AGCACACCAACCATAAGAACTCATGGTTGACAGTCATATTGTGCTAGGGCAGCATTTGGA
AACGATCAAGGAGGAAGACCAGCCCTATTATGCCATGAAGATCATCTGAAAAGCCAG
GTGGACATAGTCAGGCCATCCAAACCCCTCCCTGAAGCTCTGCAGCAGCGCTACCTGT
TCCTGAGGTATGAGGACCTGGTCCGGCACCCCTGGCCAGACGACCAAGACTATATAA
ATTGTGGGTTGGATTTCGCCCCACCTCCAAACATGGTTACAATGTACCCGC
GGCAAGGGCATGGGTCAAGCCTGCCTTCCATACTAACGCCAGGAACGCCCTAACGTCT
CTCAGGCGTGGCGTGGTCCCTTACCTTACGAAAGGTTCCAGCTCAAGATGCCTG
CGGTGAGGCTATGGATTGCTGGGATACCTCCAGGTCAAGATCTAACAAAGAACAGGC
AACCTGTCCTGGATCTCTGTCTCCATATCTGGGGCAGGTCTCCGAGAAG
GTAAggaggtctgtctgcaccccttggttccagccttagtcaccattaaacgcacag
aagccttaaggataaccaaactgagtgcccccttctcctcagccccaaagcagagggg
tctttgtgtctataactcatgtctaccctacaactgagctaaaaagccaagaaacagt
atctttctgtcttggaaatacttagaaccttaagcagcccccttgcacctgtcaagca
agacttcttgcataaccttggccttcttacctgtgcatacccttggagactcggtctgga
ggcatactggacacacagcaaacagcatctgtggagtgtgtctgtaaacccctgtcac
atctttctaaag
```

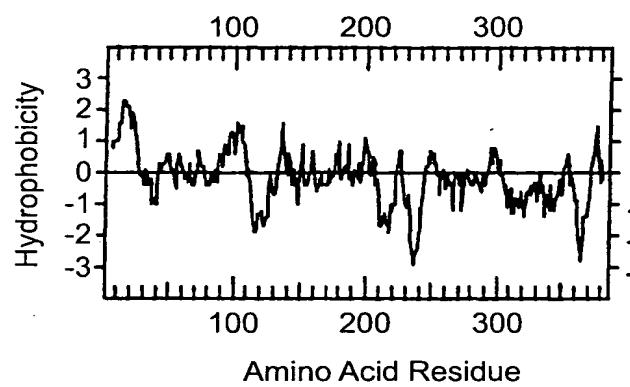


## FIG. 4

>msGST-3 translation of ORF from mouse C57Bl/6 BAC clone #87(b15)  
MMLKKGRLLMFLGSQVIVVALFIHMSVHRHLSQREESRRPVHVLVLSSWRSGSSFVG  
QLFGQHPDVYLMEPAWHVWMTFTSSTAWKLHMAVRDLLRSVFLCDMSVFDAYMNPGP  
RKQSSLFQWEQSRALCSAPVCDFFPAHEISSPKHCKLLCGQQPFDMVEKACRSHGFVV  
LKEVRFLSLQALYPLLTDPSLNHHVVHLVRDPRAVFRSREHTTIELMVDSHIVLGQHL  
ETIKEEDQPYYAMKIICKSQVDIVKAIQTLPEALQQRYLFLRYEDLVRAPLAQTTRLY  
KFVGLDFLPHLQTWVYNVTRGKGGMQHAFHTNARNALNVSQAWRWSLPYEKVSQQLQDA  
CGEAMDLLGYLQVRSQQEQGNLSDLSSSHILGQVFREG



FIG. 5





	106	134
HEC-GlcNAc6ST	SWRSGSSFVGQLEFGQHPDVFYLMEPAWHV	
GlcNAc6ST	TWRS...SSEFGELFNQNPEVFFLYEPVWHV	
KSGal6ST	TTRSGSSFVGQLFNOHLDVFYLFEPFLYHV	
C6ST	TTTGTGSSFVGGEFFNQQGNIFYLFEPLWHI	
	249	270
HEC-GlcNAc6ST	DPS...NLIHVHLVRDPRAVFRSR	
GlcNAc6ST	DPA...DLKVIHLVRDPRAVASSR	
KSGal6ST	DPT...NIKVQLQVLRDPRGILASR	
C6ST	DPR...DLIRVIQVLRDPRAVLASR	
	320	339
HEC-GlcNAc6ST	PKATQERYILVRYEDLARAP (SEQ ID NO: 16)	
GlcNAc6ST	PDWLQGHYLVVRYEDLVGDP (SEQ ID NO: 17)	
KSGal6ST	PPWLKGKYMMLVRYEDLARNP (SEQ ID NO: 18)	
C6ST	PAWLGRGYMLVRYEDVARGP (SEQ ID NO: 19)	

FIG. 6

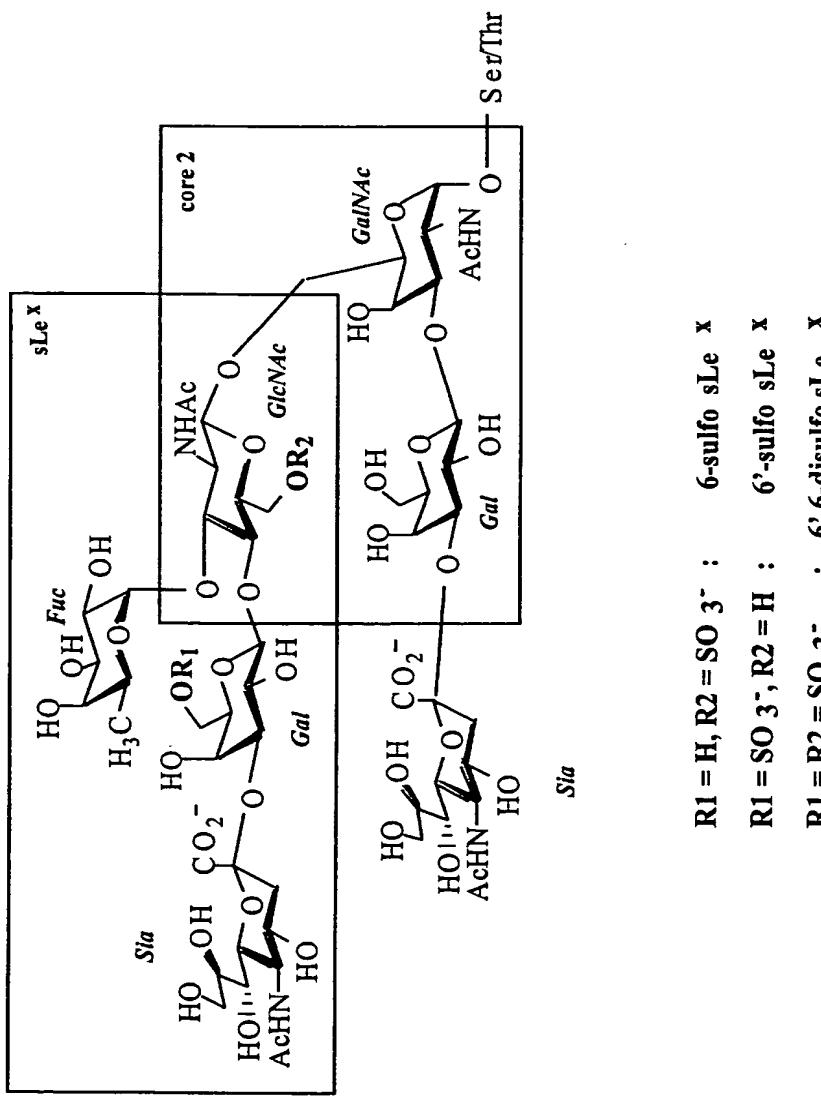


FIG. 7



FIG. 8

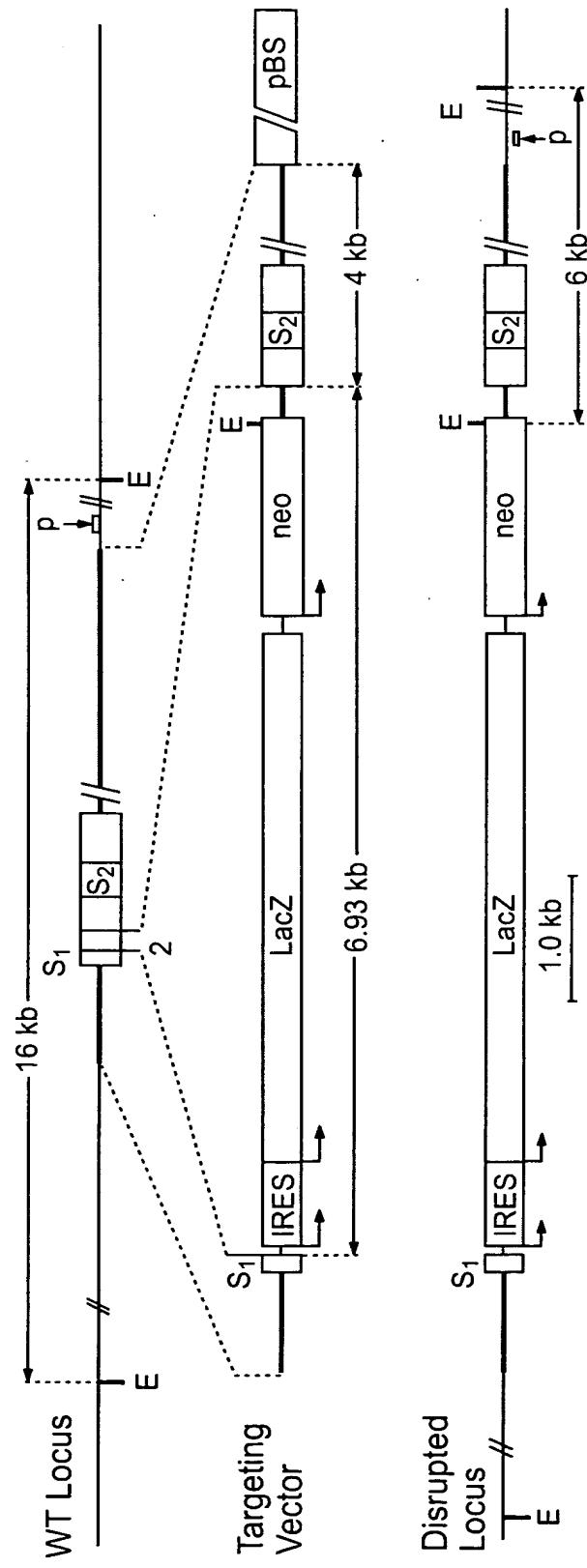




FIG. 9A

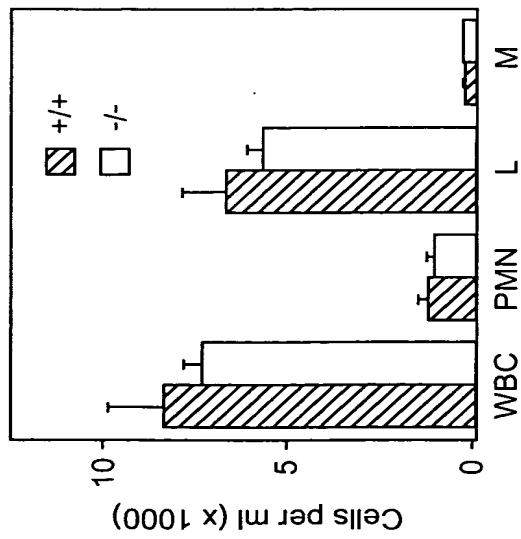


FIG. 9B

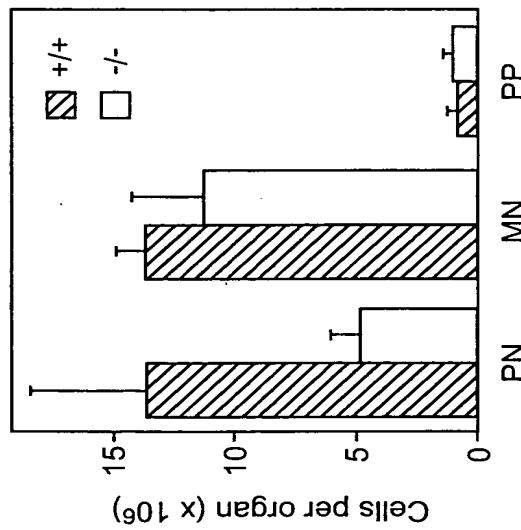


FIG. 9C

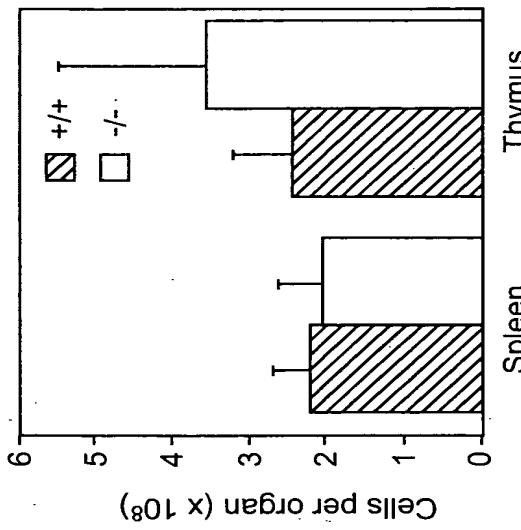
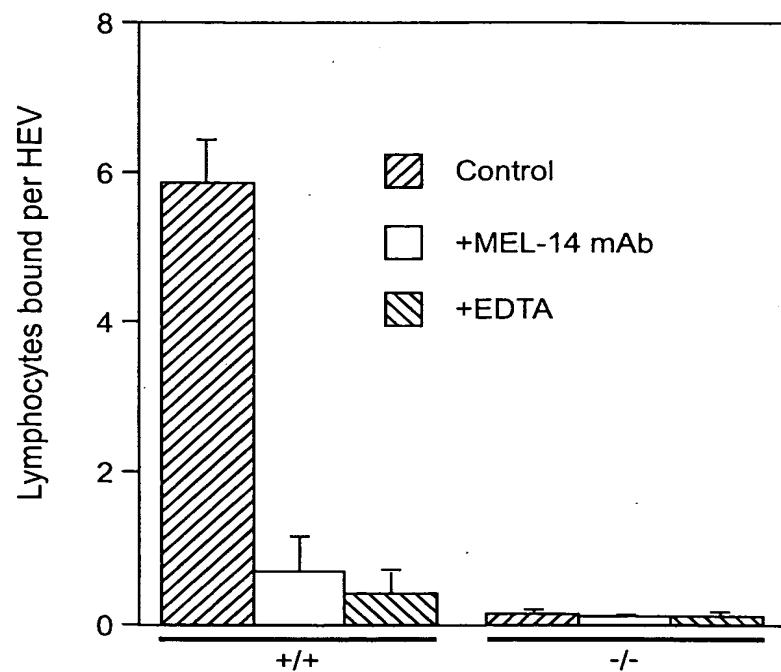




FIG. 10



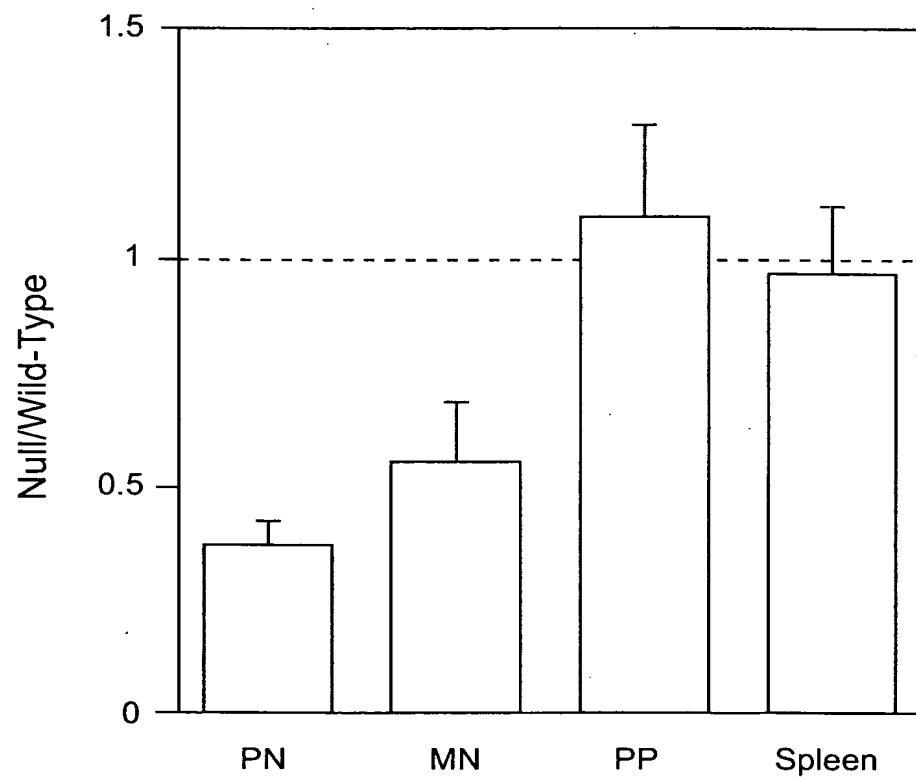
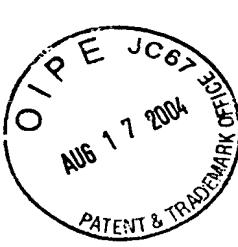


FIG. 11